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=> s virus and beta barrel

L1 211 VIRUS AND BETA BARREL

=> s 11 and loop?

L2 51 L1 AND LOOP?

=> del 12 y

=> s l1 and plant?

L2 45 L1 AND PLANT?

=> dup rem 12

PROCESSING COMPLETED FOR L2

L3 28 DUP REM L2 (17 DUPLICATES REMOVED)

=> d 1-10 ti

- ANSWER 1 OF 28 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN Mapping the triphosphatase active site of baculovirus mRNA capping enzyme LEF4 and evidence for a two-metal mechanism.
- L3 ANSWER 2 OF 28 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI Mapping the active site of vaccinia virus RNA triphosphatase.
- L3 ANSWER 3 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
- TI The structure and evolution of the major capsid protein of a large, lipid-containing DNA virus
- L3 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
- TI The Crystallographic Structure of Brome Mosaic Virus
- L3 ANSWER 5 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Chimeric **plant** viruses with mucin peptides possessing strong immunogenicity
- L3 ANSWER 6 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
- TI Structure of the maize streak virus geminate particle
- L3 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
- TI Satsuma dwarf and related viruses belong to a new lineage of plant picorna-like viruses
- L3 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
- TI Mutational analyses of the putative calcium binding site and hinge of the turnip crinkle **virus** coat protein
- L3 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
- TI The structure of tobacco ringspot virus: a link in the evolution of icosahedral capsids in the picornavirus superfamily
- L3 ANSWER 10 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7
- TI Hepatitis Core Antigen Produced in Escherichia coli: Subunit Composition, Conformation Analysis, and in Vitro Capsid Assembly

=> d 4 so

- L3 ANSWER 4 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
- SO Journal of Molecular Biology (2002), 317(1), 95-108 CODEN: JMOBAK; ISSN: 0022-2836

ANSWER 4 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2 AΒ The structure of brome mosaic virus (BMV), the type member of the bromoviridae family, has been determined from a single rhombohedral crystal by X-ray diffraction, and refined to an R value of 0.237 for data in the range 3.4-40.0 Å. The structure, which represents the native, compact form at pH 5.2 in the presence of 0.1 M Mg2+, was solved by mol. replacement using the model of cowpea chlorotic mottle virus (CCMV), which BMV closely resembles. The BMV model contains amino acid residues 41-189 for the pentameric capsid A subunits, and residues 25-189 and 1-189 for the B and C subunits, resp., which compose the hexameric capsomeres. In the model there are two Mg ions and one mol. of polyethylene glycol (PEG). The first 25 amino acid residues of the C subunit are modeled as polyalanine. The coat protein has the canonical "jellyroll" .beta.-barrel topol. with extended amino-terminal polypeptides as seen in other icosahedral plant viruses. Mass spectrometry shows that in native BMV virions, a significant fraction of the amino-terminal peptides are apparently cleaved. No recognizable nucleic acid residue is visible in the electron d. maps except at low resolution where it appears to exhibit a layered arrangement in the virion interior. It is juxtaposed closely with the interior surface of the capsid but does not interpenetrate. The protein subunits forming hexameric capsomeres, and particularly dimers, appear to interact extensively, but the subunits otherwise contact one another sparsely about the 5-fold and quasi 3-fold axes. Thus, the virion appears to be an assembly of loosely associated hexameric capsomeres, which may be the basis for the swelling and dissociation that occurs at neutral pH and elevated salt concentration A Mg ion is observed to lie exactly on the quasi-3-fold

axis and is closely coordinated by side-chains of three quasi-symmetry-related residues glutamates 84, with possible participation of side-chains from threonines 145, and asparagines 148. A presumptive Mg2+ is also present on the 5-fold axis where there is a concentration of neg. charged side-chains, but the precise coordination is unclear. In both cases these cations appear to be essential for maintenance of virion stability. D. that is contiguous with the viral interior is present on the 3-fold axis at the center of the hexameric capsomere, where there is a pore of about 6 Å diameter The d. cannot be attributed to cations and it was modeled as a PEG mol.

=> d 5 ab

ANSWER 5 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

Mucin peptide epitopes are inserted into the coat protein of a plant virus (e.g. a comovirus such as cowpea mosaic virus) having a .beta.-barrel structure at an immunogenically effective site, such as in a loop connecting β -sheets or at/near the C-terminus. The resulting chimeric virus particles are extremely immunogenic, giving better results than KLH conjugation and not requiring the addition of exogenous adjuvant. They are effective at mucosal surfaces, particularly when administered intranasally, and induce antibodies to tumor antigens.

=> d 5 pi

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	WO 2001018199	C2	20020906		

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EP 1214410

A1 20020619

EP 2000-958882 20000911

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
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=> d 8 ab

ANSWER 8 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5 The turnip crinkle carmovirus (TCV) coat protein (CP) is folded into R AB (RNA-binding), S (shell), and P (protruding) domains. The S domain is an eight-stranded .beta. barrel common to the coat protein subunits of most RNA viruses. A five-amino-acid hinge connects the S and P domains. In assembled particles, each pair of CP subunits is thought to bind a single calcium ion through interactions with three residues of one subunit and two residues of a neighboring subunit. five residues comprise the putative calcium-binding site (CBS). putative CBS and hinge are adjacent to one another. Mutations were introduced into the putative CBS or hinge in an effort to further determine the biol. functions of TCV CP. One putative CBS mutant, TCV-M32, exhibited wild-type cell-to-cell movement but failed to move systemically in Nicotiana benthamiana, and particles were not detected. Another putative CBS mutant, TCV-M23, exhibited deficient cell-to-cell movement but particles accumulated in isolated protoplasts. Two other putative CBS mutants, TCV-M22 and -M33, showed wild-type cell-to-cell and systemic movement but elicited mild systemic symptoms that were somewhat delayed. All of the hinge mutants exhibited wild-type movement but some elicited non-wild-type symptoms. Point mutations in the putative CBS or hinge appear to alter virus-ion interactions, secondary structure, or particle conformation, thereby affecting interactions between the CP and plant hosts. (c) 1999 Academic Press.

=> d 8 so

ANSWER 8 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
SO Virology (1999), 259(1), 34-42
CODEN: VIRLAX; ISSN: 0042-6822

=> d 9 ab

L3 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6 AB Tobacco ringspot virus (TRSV) is a member of the nepovirus genus of icosahedral RNA plant viruses that cause disease in fruit crops. Nepoviruses, comoviruses and picornaviruses are classified in the picornavirus superfamily. Crystal structures of comoviruses and picornaviruses and the mol. mass of the TRSV subunit (sufficient to accommodate 3 .beta.-barrel domains) suggested that nepoviruses may represent a link in the evolution of the picornavirus capsids from a T = 3 icosahedral virus. This evolutionary process is thought to involve triplication of the capsid protein gene, to encode a 3-domain polyprotein, followed by development of cleavage sites in the interdomain linking regions. Structural studies on TRSV were initiated to determine if the TRSV subunit corresponds to the proposed uncleaved 3-domain polyprotein. The 3.5 Å resolution structure of TRSV

shows that the capsid protein consists of 3 .beta.barrel domains covalently linked by extended polypeptides. order of connectivity of the domains in TRSV confirms the proposed connectivity for the precleaved comovirus and picornavirus capsid polyprotein. Structural differences between equivalent domains in TRSV and comoviruses are confined to the external surface loops, interdomain connecting polypeptides, and N termini. The 3 different domains within TRSV and comoviruses are more closely related at the structural level than the 3 individual domains within picornaviruses. The structural results confirm the notion of divergent evolution of the capsid polyproteins of nepoviruses, comoviruses, and picornaviruses from a common ancestor. A number of residues were conserved among various nepoviruses, some of which stabilize the quaternary structure of the 3 domains in the TRSV capsid protein subunit. Two conserved regions were identified on the external surface of TRSV; however, mutational studies will be needed to understand their functional significance. Nepoviruses transmitted by the same nematode species do not share regions with similar amino acid composition on the viral surface.

=> d 9 so

- L3 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6 SO Structure (London) (1998), 6(2) 157-171
- SO Structure (London) (1998), 6(2), 157-171 CODEN: STRUE6; ISSN: 0969-2126

=> d 11-20 ti

- L3 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI The structure of satellite panicum mosaic **virus** at 1.9 Å resolution
- L3 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8
- Structures of the native and swollen forms of cowpea chlorotic mottle **virus** determined by x-ray crystallography and cryo-electron microscopy
- ANSWER 13 OF 28 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

 (2004) on STN

 DUPLICATE 9
- TI The refined three-dimensional structure of an insect **virus** at 2.8 angstroms resolution.
- L3 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10
- TI Three-dimensional structure of calicivirus
- L3 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 11
- TI Architecture of Physalis mottle tymovirus as probed by monoclonal antibodies and cross-linking studies
- L3 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Three-dimensional structure of satellite tobacco mosaic **virus** at 2.9 Å resolution
- ANSWER 17 OF 28 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

 (2004) on STN

 DUPLICATE 12
- TI Double-helical RNA in satellite tobacco mosaic virus.
- L3 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13
- TI Sequence analyses and structural predictions of double-stranded RNA

- segment S1 and VP7 from United States prototype bluetongue ${\bf virus}$ serotypes 13 and 10
- L3 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 14
- Viral cysteine proteases are homologous to the trypsin-like family of serine proteases: structural and functional implications
- L3 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI The structure of cowpea mosaic virus at 3.5 Å resolution
- => d 21-28 ti
- L3 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Structure and assembly of turnip crinkle **virus**. IV. Analysis of the coat protein gene and implications of the subunit primary structure
- L3 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 15
- TI Structure of an insect virus at 3.0 Å resolution
- L3 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Recognition and interactions controlling the assemblies of .beta . barrel domains
- L3 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Three-dimensional structure of poliovirus at 2.9 Å resolution
- L3 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 16
- TI Similarities in the genomic sequence and coat protein structure of plant viruses
- L3 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 17
- TI Structure of a T = 1 aggregate of alfalfa mosaic virus coat protein seen at 4.5 Å resolution
- L3 ANSWER 27 OF 28 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI STRUCTURAL COMPARISONS OF SOME SMALL SPHERICAL PLANT VIRUSES.
- L3 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN
- Amino acid sequence of southern bean mosaic **virus** coat protein and its relation to the three-dimensional structure of the **virus**
- => dis his

(FILE 'HOME' ENTERED AT 09:52:17 ON 25 JUN 2004)

- FILE 'AGRICOLA, CAPLUS, BIOSIS' ENTERED AT 09:52:24 ON 25 JUN 2004
- L1 211 S VIRUS AND BETA BARREL
- L2 45 S L1 AND PLANT?
- L3 28 DUP REM L2 (17 DUPLICATES REMOVED)
- => s virus and plant? and (immuno? or antigen or epitope)
- L4 14803 VIRUS AND PLANT? AND (IMMUNO? OR ANTIGEN OR EPITOPE)
- => s 14 and coat protein
- L5 1074 L4 AND COAT PROTEIN
- => s 15 and adjuvant
- L6 6 L5 AND ADJUVANT
- => dup rem 16

PROCESSING COMPLETED FOR L6

L7 5 DUP REM L6 (1 DUPLICATE REMOVED)

=> d 1-5 ti

- L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- TI DNA vaccines encoding fusion protein of desired antigen and adjuvant sequence of plant viral coat protein
- L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Expression, purification, and obtaining of antibodies to a recombinant protein of the capsid of alfalfa mosaic **virus** in the bacterial system Escherichia coli
- L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Chimeric plant viruses with mucin peptides possessing strong immunogenicity
- L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
- TI Pseudomonas aeruginosa outer-membrane protein F epitopes are highly immunogenic in mice when expressed on a plant virus
- L7 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI Chimeric potyvirus-like particles as vaccine carriers.

=> d 1-5 ab

- L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- AB A nucleic acid construct is provided for delivery into living cells in vivo for inducing an immune response in a patient to an antigen; the construct directing the expression of a fusion protein, said fusion protein comprising said antigen and an adjuvant sequence derived from a plant viral coat protein. The plant viral coat protein is potato virus X coat protein. The antigen is myeloma-specific antigen scFv-5T33, self antigen, tumor antigen, viral antigen derived from e.g. herpes simplex virus or HIV, or bacterial antigen derived from e.g. Staphylococcus or Salmonella. Methods for making such constructs, and methods of using such constructs for the treatment of infectious disease, cancer and B cell malignancy, are provided.
- L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- AB The recombinant coat protein of Alfalfa Mosaic

 Virus in the bacterial expression system is obtained through

 cloning ORF of the CP gene into plasmid pET24a using the PCR technique.

 The protein had some amino acidic replacements and was shorter by three

 amino acid residue than the original protein. Immunization of rabbits was

 done with 0.5 mg of purified recombinant CP emulsified in Freund's

 complete adjuvant. ELISA test and Western blotting were

 performed. The results showed that the antiserum reacted strongly with

 the protein whose apparent mol. mass was near 30 kDa in Western blot

 anal., and the titer of antibodies was 1 : 3200 (OD492 1,3) in the ELISA

 reaction. The usefulness of the antiserum for immunoassays in

 the screening of transgenic plants and for estimating the level of

 expression of the AMV coat protein by host

 plants was shown.
- L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
- AB Mucin peptide epitopes are inserted into the coat protein of a plant virus (e.g. a comovirus such as cowpea mosaic virus) having a β -barrel structure at

an <code>immunogenically</code> effective site, such as in a loop connecting β -sheets or at/near the C-terminus. The resulting chimeric <code>virus</code> particles are extremely <code>immunogenic</code>, giving better results than KLH conjugation and not requiring the addition of exogenous <code>adjuvant</code>. They are effective at mucosal surfaces, particularly when administered intranasally, and induce antibodies to tumor antigens.

- ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1 A synthetic peptide (peptide 10) representing a surface-exposed, linear B AΒ cell epitope from outer-membrane (OM) protein F of Pseudomonas aeruginosa was shown previously to afford protection in mice from P. aeruginosa infection. This peptide was expressed in tandem with the protein F peptide 18 on each of the two coat proteins of cowpea mosaic virus (CPMV). The chimaeric virus particles (CVPs) expressing the peptides on the S (small) coat protein (CPMV-PAE4) and L (large) coat protein (CPMV-PAE5) were used to immunize mice. Following s.c. immunization in Freund's and QuilA adjuvants, CPMV-PAE4 induced antibodies predominantly against peptide 18, whereas CPMV-PAE5 produced antibodies exclusively against peptide 10, indicating that the site of peptide expression on CPMV influences its immune recognition. The anti-peptide antibodies elicited by CPMV-PAE5 were predominantly of the IgG2a isotype, indicating a highly polarized TH1-type response. The peptide-specific IgG2a strongly recognized the whole F protein, but more importantly, recognized protein F in all seven Fisher-Devlin immunotypes of P. aeruginosa. Furthermore, the peptide-specific IgG2a in CVP/QS-21 adjuvant -immunized mice was shown to bind complement and to augment phagocytosis of P. aeruginosa by human neutrophils in vitro. The ability of CPMV-PAE5 to induce P. aeruginosa-specific opsonic IgG2a gives it potential for further development as a protective vaccine against P. aeruginosa.
- ANSWER 5 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN L7Presentation of subunit vaccines in a highly ordered aggregate form can AΒ result in enhanced immune responses. Coat protein (CP) monomers of a potyvirus (Johnsongrass mosaic virus) when produced in heterologous host expression systems (Escherichia coli, yeast and insect cells) self-polymerized to produce potyvirus-like particles (PVLPs). The N- and C-terminal regions of potyvirus CP are surface-exposed and are not required for assembly. Hybrid CP monomers containing short peptides fused to their N- and/or C-termini, or large target antigens fused to the N-terminus or replacing most of the N- or C-terminal exposed regions retained the ability to assemble into hybrid PVLPs. Such chimeric PVLPs were highly immunogenic in mice and rabbits even in the absence of any adjuvant. Potyvirus CP is highly versatile in accommodating peptides or large antigens and is able to present antigens exposed on the surface of virus-like particles. This, combined with the efficiency of high level bacterial and insect cell expression systems, makes PVLPs an attractive non-pathogenic and non-replicative vaccine carrier.

=> d 1-3 pi

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L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS ON STN
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002040513 A2 20020523 WO 2001-GB5142 20011120
WO 2002040513 A3 20021107
WO 2002040513 C2 20030501

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     Microbiology (Reading, United Kingdom) (1999), 145(1), 211-220
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=> d 5 pi
L7
     ANSWER 5 OF 5 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
=> d 5 so
L7
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L1
           211 S VIRUS AND BETA BARREL
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 L_2

45 S L1 AND PLANT?

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28 DUP REM L2 (17 DUPLICATES REMOVED)
L4
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L5
           1074 S L4 AND COAT PROTEIN
Ь6
              6 S L5 AND ADJUVANT
L7
              5 DUP REM L6 (1 DUPLICATE REMOVED)
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     ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
TI
     Boroproline compound combination therapy for various diseases
     ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
     Bioadhesive nanoparticulate compositions having cationic surface
TI
     stabilizers
     ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
L9
TΙ
     Methods for treating cancer
     ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
L9
     Chimeric plant viruses with mucin peptides possessing
ΤI
     strong immunogenicity
     ANSWER 5 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
L9
     In vitro assessment of antifungal therapeutic potential of salivary
TT
     histatin-5, two variants of histatin-5, and salivary mucin
     (MUC7) domain 1.
     ANSWER 6 OF 6 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
L9
     Salivary mucins: Protective functions in relation to their diversity.
TI
=> d ab
    ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
L9
    A method is provided for treating subjects with combination therapy
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AB A method is provided for treating subjects with combination therapy including compds. of Formula I (wherein m is an integer between 0 and 10, inclusive; A and A1 may be L- or D-amino acid residues, the C bonded to B is in the L-configuration, and each X1 and X2 is, independently, a hydroxy group or a group capable of being hydrolyzed to a hydroxy group in aqueous solution at physiol. pH). It was surprisingly discovered that this combination enhanced the efficacy of both agents, and that administration of Formula I compds. induced cytokine and chemokine production in vivo. The combinations can be used to enhanced ADCC, stimulate immune responses and /or patient and treat certain disorders. The invention also relates to kits and compns. relating to such combinations.

=> d pi

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L9 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS ON STN
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2004004661 A2 20040115 WO 2003-US21547 20030709

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 => d 3 ab
      ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
      Dendritic cells play a critical role in antigen-specific immune
      responses. Materials and methods are provided for treating disease
      states, including cancer and autoimmune disease, by facilitating the
      migration or activation of antigen-presenting dendritic cells.
      In particular, methods are provided for treating cancer in a mammal
      comprising administering to said mammal an effective amount of a targeting
      construct comprising 6Ckine or a biol. active fragment or variant thereof
      and a targeting moiety.
=> d 3 pi
      ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
      PATENT NO. KIND
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             354 A1 20021113 EP 2001-401211 20010511
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     ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
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EP 1214410 Al 20020619 EP 2000-958882 20000911
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=> s cowpea mosaic virus and (epitope or antigen or immuno?)
L10 199 COWPEA MOSAIC VIRUS AND (EPITOPE OR ANTIGEN OR IMMUNO?)

=> s l10 and (beta or barrel)
L11 9 L10 AND (BETA OR BARREL)

=> dup rem 111
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L12 8 DUP REM L11 (1 DUPLICATE REMOVED)

=> d 1-8 ti

- L12 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Chimeric capsid proteins and uses in ligand identification and for defining crystallization conditions for heterologous proteins in the capsid
- L12 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Chimeric capsid proteins and uses in ligand identification and for defining common crystallization conditions for heterologous proteins in the capsid
- L12 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Expression and immunogenicity of malaria merozoite peptides displayed on the small coat protein of chimeric cowpea mosaic virus
- L12 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
- TI Reduction of bladder cancer cell growth in response to hCG.beta. CTP37 vaccinated mouse serum
- L12 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Chimeric plant viruses with mucin peptides possessing strong immunogenicity
- L12 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Influence of three-dimensional structure on the **immunogenicity** of a peptide expressed on the surface of a plant virus
- L12 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Position-dependent processing of peptides presented on the surface of Cowpea Mosaic virus
- L12 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Therapeutic and diagnostic vaccine for the treatment of microbial infections

=> d 1-8 pi

L12	ANSWER 1 OF 8 PATENT NO.	CAPLUS KIND	COPYRIGHT 2004 DATE	ACS on STN APPLICATION NO.	DATE
ΡΙ	US 2004002058 US 2003124144	A1 A1	20040101 20030703	US 2002-329987 US 2002-176714	20021226 20020621
L12	ANSWER 2 OF 8 PATENT NO.	CAPLUS KIND	COPYRIGHT 2004 DATE	ACS on STN APPLICATION NO.	DATE

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     WO 2003000855
                      A2
     WO 2003000855
                     A3
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    ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
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    ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
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    ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
    ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
    PATENT NO. KIND DATE
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L12 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

SO Indian Journal of Medical Research (2003), 118(Sept.), 115-124 CODEN: IMIREV; ISSN: 0971-5916

L12 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

SO Oncology Research (2003), 14(2), 93-100 CODEN: ONREE8; ISSN: 0965-0407

=> d 6-7 so

L12 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

SO Journal of Molecular Recognition (2000), 13(2), 71-82 CODEN: JMORE4; ISSN: 0952-3499

L12 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

SO Biological Chemistry (1999), 380(3), 387-392

CODEN: BICHF3; ISSN: 1431-6730

=> d 8 ab

L12 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AB Therapeutic peptides, vaccines and diagnostic agents are disclosed for the treatment of pathogenic infections. The agents are capable of binding to mol. address on host cell (e.g. leukocyte, endothelial or epithelial cells, nerve cells), triggering one or more signal transduction pathways and enabling selective pathogen or toxin to traffic through host tissue. The agents are microbial attachment mols. such as adhesive protein, glycoprotein, lectin, carbohydrate, glycolipid.

=> d7 ab

L12 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AB The plant virus cowpea mosaic virus (CPMV)

was developed as an epitope-presentation system. Numerous epitopes were expressed in the .beta.B-.beta.C loop of the CPMV small coat protein, all of which undergo a cleavage reaction between their two carboxy-terminal residues. Although many peptides presented in this manner give an authentic immune response, this was not the case for the NIm-1A epitope from human rhinovirus-14.

Crystallog. revealed significant differences between the structure of NIm-1A on CPMV compared with its native configuration. The 3D structure of CPMV expressing NIm-1A was used to design alterations to the context of the NIm-1A graft.

=> s mucl or pem L13 6034 MUCl OR PEM

=> s 113 and mucin

L14 1779 L13 AND MUCIN

=> s 114 and vaccine

L15 135 L14 AND VACCINE

=> s l15 and virus

L16 18 L15 AND VIRUS

=> dup rem 116

PROCESSING COMPLETED FOR L16 L17 18 DUP REM L16 (0 DUPLICATES REMOVED)

- => d 1-18 ti
- L17 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Antigen epitope attached to Ig and in conjunction with RNA for generating effector profile of T cells and activating selected subsets of antigen presenting cells
- L17 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Galactosyl epitope-expressing mucin fusion proteins for vaccination
- L17 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Prevention of Spontaneous Breast Carcinoma by Prophylactic Vaccination with Dendritic/Tumor Fusion Cells
- L17 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Phase I immunotherapy with a modified vaccinia **virus** (MVA) expressing human **MUC1** as antigen-specific immunotherapy in patients with **MUC1**-positive advanced cancer
- L17 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Immunotherapy of spontaneous mammary carcinoma with fusions of dendritic cells and mucin 1-positive carcinoma cells
- L17 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Pharmaceutical composition for treating and preventing human tumors, which express the tumor antigen mucin and/or the carcinoembryonic antigen (CEA), and the use thereof
- L17 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Transduction of human dendritic cells with a recombinant modified vaccinia Ankara **virus** encoding **MUC1** and IL-2
- L17 ANSWER 8 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI Transduction of human dendritic cells with a recombinant vaccinia **virus** encoding **MUC1** and IL-2.
- L17 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Immunorecognition of epitope peptides modified by flanking or conjugation to branched polypeptide carrier
- L17 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Recombinant pox **virus** for immunization against **MUC1** tumor-associated antigen
- L17 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Synthetic multiple tandem repeat mucin and mucin-like peptides, and uses thereof
- L17 ANSWER 12 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN TI The polymorphic epithelial mucin (MUC1): A phase I
 - clinical trial testing the tolerance and immunogenicity of a Vaccinia virus-MUC1-IL2 construct in breast cancer.
- L17 ANSWER 13 OF 18 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN TI Therapeutic antitumor response after immunization with an admixture of recombinant vaccinia viruses expressing a modified MUC1 gene and the murine T-cell costimulatory molecule B7.
- L17 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Mucin gene-transfected human B-cells as antitumor

vaccine

- L17 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Antigen-carbohydrate conjugates and their use in immunotherapy
- L17 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Recombinant epithelial cell mucin (MUC-1) expressed in baculovirus resembles antigenically tumor associated mucin, target for cancer immunotherapy
- L17 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Selection of peptide ligands for the antimucin core antibody C595 using phage display technology: definition of candidate epitopes for a cancer vaccine
- L17 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Vaccinia virus MUC1 immunization of mice: immune response and protection against the growth of murine tumors bearing the MUC1 antigen
- => d 4 so
- L17 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN SO Journal of Gene Medicine (2003), 5(8), 690-699 CODEN: JGMEFG; ISSN: 1099-498X
- => d 10 so
- L17 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN SO PCT Int. Appl., 43 pp.

 CODEN: PIXXD2
- => d 10 pi
- L17 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN KIND DATE APPLICATION NO. DATE PATENT NO. ____ ----------WO 9837095 Az PIA2 19980827 WO 1998-US3693 19980224 19981119 W: AU, CA, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9861860 A1 19980909 AU 1998-61860 19980224 B2 20001207 A2 20000628 AU 727308 EP 1012276 EP 1998-906706 19980224 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI US 2003021770 A1 20030130 US 2002-57136 20020125
- => d 18 so
- L17 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
- SO Journal of Immunotherapy with Emphasis on Tumor Immunology (1993), 14(2), 136-43
 CODEN: JIEIEZ; ISSN: 1067-5582
- => d 15 so
- L17 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN SO Eur. Pat. Appl., 34 pp.

=> d 15 pi

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L17 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN
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                   A3 19961218
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           TD, TG
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L17 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN

AB Conjugates between ≥1 repeated subunits of an antigen and a carbohydrate polymer are useful as immunogenic vaccines against disease states and for inducing cell-mediated immune responses. The conjugates may especially contain polymers of mannose and ≥1 repeated subunits of human mucin for treatment of cancers characterized by overprodn. of mucin. Thus, a fusion protein of 5 repeats of a 60-amino-acid sequence from human mucin MUC1 with glutathione S-transferase was conjugated to the aldehyde groups of oxidized mannan and stabilized by reduction Mice immunized with this conjugate and subsequently challenged with MUC1-expressing tumor cells showed inhibition of tumor growth.